Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03642A002400010041-9

CONFIDENTIAL

File

Incendiary Devil

Testing of Japanese Red Signal Flare

A. General Physical Data of Flare

Length of flare $21\frac{1}{4}$"
" of spike 2"
Weight (Total) 557 gm
Three increment candle Each increment separately fused.

Night Test Generally Still Weather Conditions

Japanese Weak Orange Flare, Chimneyed excessively, large amount of smoke. Burning Time 27 minutes

For comparison a Bristol flare was burned -- 37 min. Burning Time with carmine, flare very steady burning, chimney fell off at intervals.

B. Water Test

Japanese / Bristol

Both started and water turned on after first 30 sec.

8 min.: Both burning steadily
Bristol seems much slower

$9\frac{1}{2}$ min: Jap - 2nd section ignited smoothly
Water increased

18 min: Jap - 3rd section ignited fairly smoothly

(Noticeable increase in reaction and flaring as each new section ignites--then reaction settles down)

22 min: Bristol lost section of chimney
Flare almost went out--no red flame for at least 1 min., then started again.

27 min: Bristol lost another section of chimney. Same effect.

28 min: Jap flare jumped off wood plug

29 min: Jap flare out

CONFIDENTIAL

36 min: Bristol flare out

25X1

C. Cold Test (-20°F for 5 days)
One Japanese Flare Tested

1. Ease of ignition good
2. Excessive smoke
3. Flame often obscured by chimneyi
4. 1st transfer at $9\frac{1}{2}$ min.
5. 2nd transfer at $18\frac{1}{2}$ min.
6. Completed in $27\frac{1}{2}$ min.

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03642A002400010041-9

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03642A002400010041-9

D. Hot Test (+110°F for 5 days)

One Japanese Flare Tested

1. Ease of ignition good.
2. Excessive smoke.
3. Flame often obscured by chimneying
4. 1st transfer at 8 min.
5. 2nd transfer at 16½ min.
6. Completed in 24½ min.

Conditions of Test 2 and Test 3 Wind 12-14 MPH Temp. 54°F

CONFIDENTIAL

Sanitized Copy Approved for Release 2011/05/25 : CIA-RDP78-03642A002400010041-9